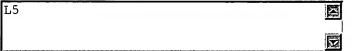
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<u>L4</u>	L1 and L3	171	<u>L4</u>
<u>L3</u>	(period\$6 or interval or date or time) near validity	2020	<u>L3</u>
<u>L2</u>	(period\$ or interval or date or time) near validity	2022	<u>L2</u>
<u>L1</u>	(entity or entities or enterprise or organisation or organization) same (relation or relationship)	28036	<u>L1</u>

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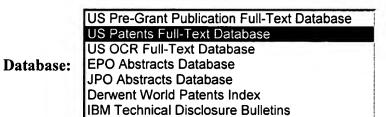
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<u>L7</u>	L4 and @AY<=1998	45	<u>L7</u>
<u>L6</u>	L4 and (time same variant)	9	<u>L6</u>
<u>L5</u>	L4 and (time near variant)	1	<u>L5</u>
<u>L4</u>	L1 and L3	171	<u>L4</u>
<u>L3</u>	(period\$6 or interval or date or time) near validity	2020	<u>L3</u>
<u>L2</u>	(period\$ or interval or date or time) near validity	2022	<u>L2</u>
<u>L1</u>	(entity or entities or enterprise or organisation or organization) same (relation or relationship)	28036	<u>L1</u>

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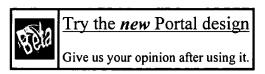
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**1** A general purpose data base design

100%

Robert P. Brazile

Proceedings of the 1984 annual conference of the ACM on The fifth generation challenge January 1984

One of the major problems facing data base designers is how to develop a logical data base design for a proposed application. Usually, for each new application, a new data base design is produced. For a Data Base Task Group (DBTG) data base management system (DBMS) this means creating a new schema and subschemas. This paper describes a non-volatile data base design that allows the DBTG structure of the data base to remain constant, regardless of changes in the applications it is portraying. ...

**2** Video and multimedia digital libraries: A digital library data model for 100% music

Natalia Minibayeva, Jon W. Dunn

Proceedings of the second ACM/IEEE-CS joint conference on Digital libraries July 2002

In this paper, we introduce a data and metadata model being developed for use in a music digital library system to support search and navigation of music content in multiple formats.

#### Results 1 - 2 of 2 short listing

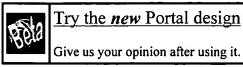
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# Consistency checking between data and process diabased on formal methods

Syouri Kouno Han-Myung Chang Araki, K.

Dept. of Investment Manage. Syst., Nomura Res. Inst. Ltd., Tokyo, Japan; This paper appears in: Computer Software and Applications Conference, COMPSAC '96., Proceedings of 20th International

Meeting Date: 08/21/1996 - 08/23/1996

Publication Date: 21-23 Aug. 1996

Location: Seoul South Korea

On page(s): 261 - 269 Reference Cited: 6

Number of Pages: xx569

Inspec Accession Number: 5385714

#### Abstract:

One of the most important problems in software development using CASE too is impossible to verify semantical consistency between **data** and procedure de expressed in structured diagrams. We introduce formal methods into the CAS order to verify strictly the consistency between them. We present methods fo that the behavior of PAD (process action diagram) keeps the **data** constraints (**entity relationship** diagram) using the Z notation. We may improve accura specification by means of giving assurance of **validity** among different kinds abstract levels of diagrams, based on the formal descriptions in Z

#### **Index Terms:**

g e ch ch b

computer aided software engineering diagrams entity-relationship modelling formals program verification software tools CASE tools Z notation consistency checking diagrams formal methods procedure descriptions process action diagram diagrams semantical consistency software development specification structured diagrams.

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<u>L12</u>	L10 and (date same associat\$4)	5	<u>L12</u>
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<u>L5</u>	L3 and (period\$1 same (validit\$ or expir\$6))	9	<u>L5</u>
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<u>L2</u>	L1 and (operation\$1 near record\$1)	186	<u>L2</u>
<u>L1</u>	(entity or entities) and relations\$4	18980	<u>L1</u>

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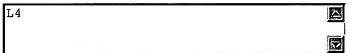
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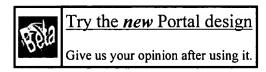
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<u>L3</u>	L2 and class\$2	124	<u>L3</u>
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<u>L1</u>	(entity or entities) and relations\$4	18980	<u>L1</u>



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1 A retrospective on constraint databases Peter Revesz

100%

Proceedings of the Paris C. Kanellakis memorial workshop on Principles of computing & knowledge: Paris C. Kanellakis memorial workshop on the occasion of his 50th birthday June 2003

In this paper we give a review of constraint databases, a field that was started by Paris Kanellakis, Gabriel Kuper and the author. The review includes basic concepts of data representation, constraint query languages, and query evaluation. We also illustrate applications of constraint databases in the areas of model checking, data mining, trust management, Diophantine polynomial equations, and moving objects.

### 2 Nested historical relations

100%

A. U. Tansel , L. Garnett

ACM SIGMOD Record, Proceedings of the 1989 ACM SIGMOD international conference on Management of data June 1989

Volume 18 Issue 2

The paper extends nested relations for managing temporal variation of complex objects. It combines the research in temporal databases and nested relations for nontraditional database applications. The basic modelling construct is a temporal atom as an attribute value. A temporal atom consists of two components, a value and temporal set which is a set of times denoting the validity period of the value. We define algebra operations for nested historical relations. Data redundancy in nested hi ...

**3** Designing in the dark: the changing user-developer relationship in বী information systems development

100%

Joe Nandhakumar, Matthew Jones

Proceedings of the eighteenth international conference on Information systems December 1997

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4 Using semantic caching to manage location dependent data in mobile 100% computing

Qun Ren , Margaret H. Dunham

Proceedings of the 6th annual international conference on Mobile computing and networking August 2000

Location-dependent applications are becoming very popular in mobile environments. To improve system performance and facilitate disconnection, caching is crucial to such applications. In this paper, a semantic caching scheme is used to access location dependent data in mobile computing. We first develop a mobility model to represent the moving behaviors of mobile users and formally define location dependent queries. We then investigate query processing and cache management strategies. The pe ...

**5** Data management issues for large scale, distributed workflow systems 100% on the Internet

J. Leon Zhao , Akhil Kumar

**ACM SIGMIS Database** September 1998

Volume 29 Issue 4

The Internet is providing worldwide connectivity for business organizations and has created a much greater opportunity for people to collaborate remotely in an automated workflow setting. However, the speed of delivery of workflow data on the Internet can be unpredictable due to variability in traffic and limited bandwidth. Further, the issue of data management becomes more complex when the system consists of various clients with different system and networking settings. In this paper, we invest ...

Attribute certification: an enabling technology for delegation and role
based controls in distributed environments

John Linn , Magnus Nyström

**Proceedings of the fourth ACM workshop on Role-based access control** October 1999

7 In-service monitoring for cell loss quality of service violations in ATM 100% networks

Hongbo Zho, Victor S. Frost

IEEE/ACM Transactions on Networking (TON) April 1996

Volume 4 Issue 2

8 Development and evaluation of an application in a deductive 100%

**4** environment

Ilias Petrounias , Pericles Loucopoulos

Proceedings of the second international conference on Information and knowledge management December 1993

memorage management becomber 1993

**9** Group spontaneity 100%

Jane Webster

Proceedings of the 1992 ACM SIGCPR conference on Computer personnel research May 1992

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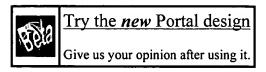
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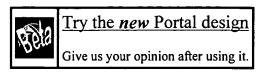
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1 Weak temporal relations	100%					
Shashi K Gadia Proceedings of the fifth ACM SIGACT-SIGMOD symposium on Principles of database systems June 1985						
Programmer Aptitude and Competence Test System (PACTS)  J. P. Seiner  Proceedings of the ninth annual SIGCPR conference June 1971  PACTS—Programmer Aptitude/Competence Test System—is a package consisting of procedures, software, instructions and problems designed to evaluate programmer competence and aptitude. From the preceding definitions the following four criteria have been selected as being the most important as well as—in most instances—the most easily observable and measurable: 1. Correctness. 2. Efficiency.	100%					
3 A temporally oriented data model	100%					
Gad Ariav ACM Transactions on Database Systems (TODS) December 1986						
Volume 11 Issue 4  The research into time and data models has so far focused on the identification of extensions to the classical relational model that would provide it with "adequate" semantic capacity to deal with time. The temporally oriented data model (TODM) presented in this paper is a result of a different approach, namely, it directly operationalizes the pervasive three-dimensional metaphor for time. One of the main results is thus the development of the notion of the data cube: a three-di						
4 A first course in computational science: (why a math book isn't enough)	100%					

ACM SIGCSE Bulletin, Proceedings of the 33rd SIGCSE technical symposium on

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James L. Noyes

#### Computer science education February 2002

Volume 34 Issue 1

There is a change underway in the CS curriculum that reflects a renewed emphasis upon solving applications. Computational science applies solution methods to various scientific models. However, following a computational science approach means more than just using formulas out of a math book. It means having a scientific mindset, understanding and using a scientific approach, thoroughly testing both the theoretical models and the specific implementation of these models, knowing when to use analyt ...

5 A homogeneous relational model and query languages for temporal databases

100%

Shashi K. Gadia

#### ACM Transactions on Database Systems (TODS) October 1988

Volume 13 Issue 4

In a temporal database, time values are associated with data item to indicate their periods of validity. We propose a model for temporal databases within the framework of the classical database theory. Our model is realized as a temporal parameterization of static relations. We do not impose any restrictions upon the schemes of temporal relations. The classical concepts of normal forms and dependencies are easily extended to our model, allowing a suitable design for a database scheme. We pr ...

**6** Querying ATSQL databases with temporal logic

100%

Jan Chomicki , David Toman , Michael H. Böhlen

ACM Transactions on Database Systems (TODS) June 2001

Volume 26 Issue 2

We establish a correspondence between temporal logic and a subset of ATSQL, a temporal extension of SQL-92. In addition, we provide an effective translation from temporal logic to ATSQL that enables a user to write high-level queries which are then evaluated against a space-efficient representation of the database. A reverse translation, also provided in this paper, characterizes the expressive power of a syntactically defined subset of ATSQL queries.

**7** An approach to discovering temporal association rules

100%

Juan M. Ale , Gustavo H. Rossi

Proceedings of the 2000 ACM symposium on Applied computing March 2000

**8** Comparison of access methods for time-evolving data

100%

Betty Salzberg , Vassilis J. Tsotras

ACM Computing Surveys (CSUR) June 1999

Volume 31 Issue 2

This paper compares different indexing techniques proposed for supporting efficient access to temporal data. The comparison is based on a collection of important performance criteria, including the space consumed, update processing, and query time for representative queries. The comparison is based on worst-case analysis, hence no assumptions on data distribution or query frequencies are made. When a number of methods have the same asymptotic worst-case behavior, features in the methods tha ...

A method for constructing generalized non-normal-form models Yiu-Kai Ng , Austin Melton , Elizabeth Unger

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## Proceedings of the 19th annual conference on Computer Science April 1999

**10** Development and evaluation of an application in a deductive

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**4** environment

Ilias Petrounias , Pericles Loucopoulos

Proceedings of the second international conference on Information and knowledge management December 1993

**11** Evaluation of relational algebras incorporating the time dimension in

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databases

L. Edwin McKenzie , Richard T. Snodgrass

ACM Computing Surveys (CSUR) December 1991

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